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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HANSEN, STUART ALAN	
ART UNIT	PAPER NUMBER
2809	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/527,995	CZEKAY ET AL.	
	Examiner	Art Unit	
	Stuart Hansen	2809	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/21/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/21/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Application 10/527,995 filed 3/21/2005. It is also recognized that this action is in the National phase of PCT/DE03/02774 dated 8/20/2003 and is also eligible for Foreign Priority under DE 10243860 filed 9/20/2002.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbehenn et al. (EP 0696841, filed 7/21/1995, dated 2/14/1996), and further in view of Suzuki et al. (US 5,331,534, filed 11/17/1992, dated 7/19/1994).

Barbehenn et al. shows the device similar to claim 1: An electrical circuit for voltage transformation (Fig 1), having at least one input terminal (Fig 1 [V_i(top left terminal)]) for feeding in an electrical input power by applying a positive electrical DC voltage that changes temporally with respect to an electrical reference potential, at least one reference potential terminal (Fig 1 [lower left terminal]) for applying the reference potential, at least one output terminal (Fig 1 [V_o(top left terminal)]) for drawing an electrical output power, at least one output diode (Fig 1 [D1]) having an anode and a cathode, at least one transfer capacitance (Fig 1 [C_c1]) having an electrode and a counter electrode, at least one input inductance (Fig 1 [L1]) having an inductance

terminal and a further inductance terminal, and at least one base point inductance (Fig 1 [L2]) having an inductance terminal and a further inductance terminal, in which case the further inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the transfer capacitance (Fig 1 [C_c1]) have a common node (Fig 1 [22]), the counter electrode of the transfer capacitance (Fig 1 [C_c1]) and the further inductance terminal of the base point inductance (Fig 1 [L2]) have a common node (Fig 1 [32]), a radiofrequency switch (Fig 1 [S1]) for producing and/or interrupting an electrically conductive connection between the reference potential terminal and the common node (Fig 1 [22]) of the further inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the transfer capacitance (Fig 1 [C_c1]) and a means for forwarding the electrical output power to the output terminal (Fig 1 [V_o(top left terminal)]) are present, the means having the base point inductance (Fig 1 [L2]) and the output diode (Fig 1 [D1]) and the cathode of the output diode (Fig 1 [D1]) having a common node with the output terminal.

Barbehenn et al. however lacks anticipation by failing to disclose all of claim 1 limitations: at least one input diode having an anode and a cathode, at least one input capacitance having an electrode and a counter electrode, in which case the anode of the input diode and the input terminal have a common node, the cathode of the input diode, the inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the input capacitance have a common node, the counter electrode of the input capacitance, the reference potential terminal and the inductance terminal of the base point inductance (Fig 1 [L2]) have a common node.

Suzuki et al. fails to disclose that: the cathode of the input diode, the inductance terminal of the input inductance and the electrode of the input capacitance have a common node, the counter electrode of the input capacitance, the reference potential terminal and the inductance terminal of the base point inductance have a common node.

Suzuki et al. however does disclose the sections of claim 1 that read: at least one input diode (Fig 2 [25]) having an anode and a cathode, at least one input capacitance (Fig 2 [26]) having an electrode and a counter electrode, in which case the anode of the input diode (Fig 2 [25]) and the input terminal have a common node.

Since both Barbehenn et al. and Suzuki et al. teach a circuit for conversion of an input signal in switching power supplies, it would have been obvious to one of ordinary skill in the art to have the circuit of Suzuki et al. in Barbehenn et al. Applying the input diode [25] and capacitance [26] of Suzuki et al. in their current configuration to the nodes on the left side of Fig 1 of Barbehenn et al. would then realize the device as claimed for the purpose of further smoothing out the rectified AC signal and limiting power returning to the rectifier from the input diode and input capacitor because it is undesirable to have too much fluctuation in a DC signal and it is also sometimes necessary to prevent power from returning to the source.

Barbehenn et al. teaches the device according to claim 2: the means for forwarding the electrical output power to the output terminal (Fig 1 [V_o(top left terminal)]) having the common node (Fig 1 [32]) of the counter electrode of the transfer capacitance (Fig 1 [C_c1]) and the further inductance terminal of the base point

inductance (Fig 1 [L2]), and said node and the anode of the output diode (Fig 1 [D1]) being electrically conductively connected.

Barbehenn et al. shows the device similar to claim 5: An electrical circuit for voltage transformation (Fig 1), having at least one input terminal (Fig 1 [V_i(top left terminal)]) for feeding in an electrical input power that changes temporally with respect to an electrical reference potential, at least one reference potential terminal (Fig 1 [lower left terminal]) for applying the reference potential, at least one output terminal (Fig 1 [V_o(top left terminal)]) for drawing an electrical output power, at least one output diode (Fig 1 [D1]) having an anode and a cathode, at least one transfer capacitance (Fig 1 [C_c1]) having an electrode and a counter electrode, at least one input inductance (Fig 1 [L1]) having an inductance terminal and a further inductance terminal, and at least one base point inductance (Fig 1 [L2]) having an inductance terminal and a further inductance terminal, in which case the further inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the transfer capacitance (Fig 1 [C_c1]) have a common node (Fig 1 [22]), the counter electrode of the transfer capacitance (Fig 1 [C_c1]) and the further inductance terminal of the base point inductance (Fig 1 [L2]) have a common node (Fig 1 [32]), a radiofrequency switch (Fig 1 [S1]) for producing and/or interrupting an electrically conductive connection between the reference potential terminal and the common node (Fig 1 [22]) of the further inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the transfer capacitance (Fig 1 [C_c1]) and a means for forwarding the electrical output power to the output terminal (Fig 1 [V_o(top left terminal)]) are present, the means having the base point inductance (Fig 1

[L2]) and the output diode (Fig 1 [D1]) and the cathode of the output diode (Fig 1 [D1]) having a common node with the output terminal.

Barbehenn et al. however lacks anticipation by failing to disclose all of claim 5 limitations: by applying a negative electrical DC voltage, at least one input diode having an anode and a cathode, at least one input capacitance having an electrode and a counter electrode, in which case the cathode of the input diode and the input terminal have a common node, the anode of the input diode, the inductance terminal of the input inductance (Fig 1 [L1]) and the electrode of the input capacitance have a common node, the counter electrode of the input capacitance, the reference potential terminal and the inductance terminal of the base point inductance (Fig 1 [L2]) have a common node.

Suzuki et al. fails to disclose that: the anode of the input diode, the inductance terminal of the input inductance and the electrode of the input capacitance have a common node, the counter electrode of the input capacitance, the reference potential terminal and the inductance terminal of the base point inductance have a common node.

Suzuki et al. however does disclose the sections of claim 5 that read: at least one input diode (Fig 2 [25]) having an anode and a cathode, at least one input capacitance (Fig 2 [26]) having an electrode and a counter electrode, in which case the cathode of the input diode (Fig 2 [25]) and the input terminal have a common node.

When changing the voltage polarity with respect to a reference terminal, applied to the device according to claim 1 for the purpose of sending power and current in the opposite direction, it would have been well known to all skilled in the art at the time of

the invention that the combined circuit of Barbehenn et al. and Suzuki et al. would require the diodes to change direction. Since both Barbehenn et al. and Suzuki et al. teach a circuit for conversion of an input signal in switching power supplies, it would have been obvious to one of ordinary skill in the art to combine these two references in a fashion that complies with claim 5. Applying the input diode [25] and capacitance [26] of Suzuki et al. in their current configuration to the nodes on the left side of Fig 1 of Barbehenn et al. would then realize the device as claimed in claim 5 after changing diode direction for the purpose of sending a smooth current flow in the opposite direction to the invention of claim 1.

In regards to claim 6, Barbehenn et al. further discloses: the means for forwarding the electrical output power to the output terminal (Fig 1 [V_o(top left terminal)]) having the common node (Fig 1 [32]) of the counter electrode of the transfer capacitance (Fig 1 [C_c1]) and the further inductance terminal of the base point inductance (Fig 1 [L2]).

Barbehenn et al. differs from the claimed invention by not showing said node and the *cathode* of the output diode (Fig 1 [D1]) being electrically conductively connected.

Cause Barbehenn et al. does disclose said node and the anode of the output diode (Fig 1 [D1]) being electrically conductively connected; it would have been obvious to one skilled in the art at the time of the invention to switch diode polarity for the purpose of sending current in the opposite direction, which can be used for battery charging circuits or multidirectional switching power converters.

In regards to claim 18, Barbehenn et al. and Suzuki et al. teach: the circuit as claimed in claim 1 is for power factor correction, a power drawn from a power supply system being corrected in terms of the power factor (It is inherent that a circuit of identical arrangement comprising comparable parts would also correct the power factor.)

Claims 3, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbehenn et al. (EP 0696841, filed 7/21/1995, dated 2/14/1996), and Suzuki et al. (US 5,331,534, filed 11/17/1992, dated 7/19/1994). as applied to claim 1 above, and further in view of Yasumura (US 6,396,717, filed 7/9/2001, dated 5/28/2002).

In regards to claim 3, Barbehenn et al. and Suzuki et al. differ from the claimed invention by failing to teach at least one further reference potential terminal for applying a further reference potential, at least one transformer, having at least one primary inductance, at least one secondary inductance, the inductance terminal of the secondary inductance and the further reference potential terminal have a common node and, the further inductance terminal and the anode of the output diode have a common node.

Yasumura shows the device as claimed according to claim 3: the means for forwarding the electrical output power comprising at least one further reference potential terminal (Fig 1, electrode of capacitor [C] just after output diode [D01] and counter electrode of capacitors [C and C2]) for applying a further reference potential (Fig 1 [ground]) and at least one transformer (Fig 1 [PIT]), having at least one primary inductance (Fig 1 [L1]) having an inductance terminal and a further inductance terminal

and at least one secondary inductance (Fig 1 [L2]) having an inductance terminal and a further inductance terminal, in which case the inductance terminal of the secondary inductance (Fig 1 [L2]) and the further reference potential terminal have a common node and the further inductance terminal of [L2] and the anode of the output diode (Fig 1 [D01]) have a common node.

Both Yasumura and Barbehenn et al. are of the related field of power factor correction, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the base point inductance of Barbehenn in the primary inductance of Yasumura to create the transformer as claimed with the base point inductance being the primary inductance of the transformer because using a transformer for transmitting power, AC or DC, allows for electrical isolation of the output devices from the input power supply as a means of protection.

In the device according to claim 4, Yasumura further teaches: the means for forwarding the electrical output power having at least one output capacitance (Fig 1 [C2]) having an electrode and a counter electrode, the counter electrode of the output capacitance (Fig 1 [C2]) and the common node of the further reference potential terminal (Fig 1 [ground]) and the inductance terminal of the secondary inductance (Fig 1 [L2]) being electrically and conductively connected and the electrode of the output capacitance (Fig 1 [C2]) and the common node of the further inductance terminal of the secondary inductance (Fig 1 [L2]) and the anode of the output diode (Fig 1 [D01]) being electrically conductively connected.

With respect to claim 9, Yasumura teaches: the transformer (Fig 1 [PIT]) being a radiofrequency/high-voltage transformer (column 12, lines 53-55, Yasumura's current embodiment allows and high and low frequency currents through the primary winding of the transformer requiring a transformer that can operate at high, radiofrequencies.)

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbehenn et al. (EP 0696841, filed 7/21/1995, dated 2/14/1996), and Suzuki et al. (US 5,331,534, filed 11/17/1992, dated 7/19/1994). as applied to claim 5 above, and further in view of Yasumura (US 6,396,717, filed 7/9/2001, dated 5/28/2002).

Barbehenn et al. and Suzuki et al. differ from the claim 7 by failing to teach at least one further reference potential terminal for applying a further reference potential, at least one transformer, having at least one primary inductance, at least one secondary inductance, the inductance terminal of the secondary inductance and the further reference potential terminal have a common node and, the further inductance terminal and the anode of the output diode have a common node.

Yasumura also fails to teach the device as claimed by not showing the further inductance terminal and the cathode of the output diode have a common node. Yasumura however does show: the means for forwarding the electrical output power comprising at least one further reference potential terminal (Fig 1, electrode of capacitor [C] just after output diode [D01] and counter electrode of capacitors [C and C2]) for applying a further reference potential (Fig 1 [ground]) and at least one transformer (Fig 1 [PIT]), having at least one primary inductance (Fig 1 [L1]) having an inductance terminal and a further inductance terminal and at least one secondary inductance (Fig 1

[L2]) having an inductance terminal and a further inductance terminal, in which case the inductance terminal of the secondary inductance (Fig 1 [L2]) and the further reference potential terminal have a common node and the further inductance terminal of [L2] and the anode of the output diode (Fig 1 [D01]) have a common node.

Both Yasumura and Barbehenn et al. are of the related field of power factor correction, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the base point inductance of Barbehenn in the primary inductance of Yasumura to create the transformer as claimed with the base point inductance being the primary inductance of the transformer because using a transformer for transmitting power, AC or DC, allows for electrical isolation of the output devices from the input power supply as a means of protection. It would also have been obvious to one of ordinary skill in the art at the time of the invention to reverse the polarity at the terminals with respect to the reference terminals and to reverse the direction of the diodes for the purpose of transmitting power in the opposite direction (right to left).

In the device according to claim 8, Yasumura further teaches: the means for forwarding the electrical output power having at least one output capacitance (Fig 1 [C2]) having an electrode and a counter electrode, the counter electrode of the output capacitance (Fig 1 [C2]) and the common node of the further reference potential terminal (Fig 1 [ground]) and the inductance terminal of the secondary inductance (Fig 1 [L2]) being electrically and conductively connected and the electrode of the output capacitance (Fig 1 [C2]) and the common node of the further inductance terminal of the

secondary inductance (Fig 1 [L2]) and the anode of the output diode (Fig 1 [D01]) being electrically conductively connected.

Claim 10, 11 and 12 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barbehenn et al. (EP 0696841, filed 7/21/1995, dated 2/14/1996), and Suzuki et al. (US 5,331,534, filed 11/17/1992, dated 7/19/1994) as applied to claim 1 above, and further in view of Bowman et al. (US 4,685,041, filed 8/8/1986, dated 8/4/1987).

Barbehenn et al. and Suzuki et al. differ from the invention as stated in claim 10 by not showing: for the purpose of relieving the switching load on the radiofrequency switch, at least one tuning capacitance having an electrode and a counter electrode is present, the electrode of the tuning capacitance and the common node of the further inductance terminal of the input inductance and the electrode of the transfer capacitance are electrically conductively connected and the counter electrode of the tuning capacitance and the reference potential terminal are electrically and conductively connected.

Bowman et al. teaches the device according to claim 10: for the purpose of relieving the switching load on the radiofrequency switch (Fig 2 [110], column 5, lines 46-49), at least one tuning capacitance (Fig 2 [15]) having an electrode and a counter electrode is present, the counter electrode of the tuning capacitance (Fig 2 [15]) and the reference potential terminal (Fig 2 [Return]) are electrically conductively connected.

Since both Bowman et al. and the combined circuit of Barbehenn et al. and Suzuki et al. teach using high frequency switches to transmit power through a transformer, it would have been obvious to one of ordinary skill in the art at the time of

the invention to have the tuning capacitor of Bowman in the invention according to Barbehenn et al. and Suzuki et al. to assist the radiofrequency switch with the current and voltage waveforms across the parallel pair of devices, cause they are all designed for the common purpose of DC-to-DC conversion.

The combined device of Bowman et al. with Barbehenn et al. and Suzuki et al. teaches the device according to claim 11: the radiofrequency switch (Fig 2 [110] of Bowman et al.) having at least one MOS transistor (column 6, lines 63-66 of Bowman et al.).

In regards to claim 12, the combined circuit of Suzuki et al., and Barbehenn et al. differs from the claimed invention by not showing the radiofrequency switch having a switching frequency selected from the range of 500kHz to 200MHz. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the radiofrequency switch to have a switching frequency selected from the range of 500kHz to 200MHz, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 13, the combined circuit of Barbehenn et al., and Suzuki et al. differs from the claimed invention by not showing the input capacitance and/or the transfer capacitance having at least one radiofrequency capacitor having a capacitance selected from the range of 10pF to 1000pF inclusive. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the input capacitance and/or the transfer capacitance to have at least one radiofrequency

capacitor having a capacitance selected from the range of 10pF to 1000pF inclusive, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

In regards to claim 14, the combined circuit of Bowman et al., Suzuki et al., and Barbehenn et al. differs from the claimed invention by not showing the tuning capacitance having at least one radiofrequency capacitor having a capacitance selected from the range of 10pF to 200pF inclusive. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the tuning capacitance to have at least one radiofrequency capacitor having a capacitance selected from the range of 10pF to 200pF inclusive, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 15, Yasumura differs from the claimed invention by not showing the output capacitance having at least one radiofrequency capacitor having a capacitance selected from the range of 300pF to 3000pF inclusive. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the output capacitance to have at least one radiofrequency capacitor having a capacitance selected from the range of 300pF to 3000pF inclusive, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 16, the combined circuit of Suzuki et al., and Barbehenn et al. differs from the claimed invention by not showing the input inductance, the base point inductance, the primary inductance and/or the secondary inductance having an inductance selected from the range of 0.3μH to 100μH inclusive. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the input inductance, the base point inductance, the primary inductance and/or the secondary inductance to have an inductance selected from the range of 0.3μH to 100μH inclusive, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barbehenn et al. (EP 0696841, filed 7/21/1995, dated 2/14/1996), and Suzuki et al. (US 5,331,534, filed 11/17/1992, dated 7/19/1994), and further in view of Bergman et al. (US 5,661,664, filed 8/4/1995, dated 8/26/1997).

In regards to claim 17, the combine circuit of Barbehenn et al. and Suzuki et al. differs from the claimed invention by not showing that the input diode and/or the output diode being a Schottky diode having at least one diode material selected from the group SiC and/or GaAs.

Bergman et al. does teach however using: a Schottky diode having at least one diode material selected from the group SiC (Fig 7 [44]; column 3, lines 16-31; column 8, lines 61-67). Since the combined circuit of Barbehenn et al. with Suzuki et al. and Bergman et al. disclose the use of diodes in converters, it would have been

obvious to one of ordinary skill in the art at the time of the invention to use a Schottky diode in either the input diode, the output diode or both because of their lower resistance, meaning better power transfer and less power loss, and their high breakdown voltages resulting in more reliable and robust operation.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart Hansen whose telephone number is 571-270-1611. The examiner can normally be reached on 7:30- 5 M-Th, Alt. Frid 7:30-4 Est Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Loke can be reached on 571-270-2100. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stuart Hansen
February 2, 2007

STEVEN LOKE
SUPERVISORY PATENT EXAMINER